

REMARKS

Remarks as it regards to the Office Action Date from February 8th, 2007.

Reconsideration of the application in view of the above amendments and the

5 following remarks is respectfully requested.

The Examiner requests that the applicant correct the Cross Reference to Related Patent and Continuing Data from Bib Data Sheet.

10 The Applicant has updated the Specification in accordance to this request.

The Examiner has rejected the Amendment on December 14th, 2006 under 37 U.S.C. §112 as new subject matter as “untethered device is reassigned from a first base station to a second base station, determining signal strength, to request 15 handoff, reassigning the untethered device using power line communications when the requirement is met.....to a second base station”

The Applicant believes that the claim(s) does contain subject matter which was described in the specification in such a way as to reasonably convey to one

20 skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 29 is specifically referenced in the Patent Application's Specification at [page 7, line 1 to page 7, line 3], [page 12, line 20 to page 12, line 27], [page 3, 25 line 34 to page 3, line 36], and [page 4, line 15 to page 4, line 18]. However, the Applicant cancels Claim 29 so as to allow for continued examination of this Patent Application.

Claim 30 is specifically referenced in the Patent Application's Specification at

30 [page 1, line 24 to page 3, line 30], [page 13, line 1 to page 13, line 10], and as referenced several times as a street light. However, the Applicant cancels Claim 30 so as to allow for continued examination of this Patent Application.

Claim 31 is specifically referenced in the Patent Application's Specification at [page 1, line 24 to page 3, line 30], [page 13, line 1 to page 13, line 10], and as referenced several times as a street light. However, the Applicant cancels Claim 5 31 so as to allow for continued examination of this Patent Application.

Claim 32 is specifically referenced in the Patent Application's Specification at [page 3, line 21 to page 3, line 26], [page 5, line 16 to page 3, line 25], [page 7, line 10 to page 7, line 25], and [page 14, line 21 to page 15, line 33]. However, 10 the Applicant cancels Claim 32 so as to allow for continued examination of this Patent Application.

Claim 33 is specifically referenced in the Patent Application's Specification at [page 3, line 21 to page 3, line 26], [page 5, line 16 to page 3, line 25], [page 7, 15 line 10 to page 7, line 25], and [page 14, line 21 to page 15, line 33]. However, the Applicant cancels Claim 33 so as to allow for continued examination of this Patent Application.

The Examiner has rejected the Amendment on December 14th, 2006 under 35 20 U.S.C. §102. This rejection is the same as the rejection from September 25th, 2006.

The Applicant has previously amended the Claims. The current amendment 25 cancels Claims 29-33. Also, the Applicant has replaced the wording of *roadway luminaire* with *street light* in Claims 1, 23-25 so as to allow for continued examination of this Patent Application. Therefore, the Applicant requests that Claims 1, 6-10, 12-14 & 23-28 be considered. Also, the Applicant requests that the remarks from the Office Action from September 25th, 2006 be considered.

30 **Remarks as it regards to the Office Action Date from September 25th, 2006.**
Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested.

The Examiner provisionally rejects claims 1, 6, 8-10, 14 & 23-28 under 35 U.S.C. §102 as claiming the same invention as U.S. Patent 3,656,112 by Paull.

5 The Examiner rejects claim 1 as being unpatentable over Paull. The Examiner states that Paull discloses power line communication in the form of a system for handing off or exchanging information comprising: tethered device connected to power transmission communication network having transceiver and power transmission communication system and untethered device/portable having a
10 transceiver for transceiving radio signals to remote location.

I cannot agree. Paull does disclose the transmission of information and exchange of information; however, Paull never discloses a method of handoff consisting of a process of transferring an ongoing call or data session from one
15 access point connected to the core network to another access point. The exchanging of information does not constitute the exchanging of untethered devices connected to a first access point so that it is reassigned to a second access point. Also Paull never uses other synonyms for handoff such as reassigning. One skilled in the art of telecommunication would realize that Paull
20 does not teach handoff but only to the transmission or exchanging of information, and that not every wireless device incorporates a method of handoff or a special protocol to support handoff. One skilled in the art of telecommunication would realize that Paull states that the interrogator only talks to one meter at a time.
"This permits an interrogation operation to be carried out over a multi-station communication link with the assurance that one and only one reply station will respond to each interrogation message transmitted by the interrogator, and the identity of the reply station will be known to the interrogator." (Paull - Col. 1, Line 45-50) One skilled in the art would recognize that Paull's communication system would not be beneficial for reassigning multiple devices and that only one meter
25 could be read at one time.
30

Furthermore, Paull's filing date was March 14th, 1969 which is before the U.S. Patent Office's Art Unit 455/436 was established for subject matter wherein a mobile station during a call is switched from a first to a second serving base station, which may be located in different cells (inter-handoff) or located within a cell (intra-handoff) and USPTO Art Unit 455/442 was established for subject matter wherein the mobile station maintains its assigned channel while entering a new cell (e.g., make before break). This Applicant has not found a patent in the Art Unit 455/442 and Art Unit 455/436 that uses Paull as a prior art reference. Furthermore, the USPTO has accepted the fact based on the non-reference to Paull and the creation of two distinct art units that handoff is not just exchanging information but a complex method of reassigning devices from one base station to another base station.

Furthermore, Paull does disclose exchanging information with reply stations.

15 However, Paull specifically says the exchange of information is with a single reply station instead of having the ability to exchange information with multiple reply stations. [col.1, line 25 to col.1, line 50] Therefore, Paull is saying that this is not handoff but just the transmission of data. Paull's patent is not consistent with art related to handoff whereby multiple untethered devices can be handed off in parallel and at the same time.

Although the Applicant believes that Claim 1 was clearly defined over the references cited by the Examiner, the claim has been modified in order to clarify the invention in this respect.

25 The Examiner rejects claim 6 as being unpatentable over Paull. The Examiner states that Paull discloses power line communication in the form of a system for handing off or exchanging information by wireless network.

30 I cannot agree. Paull does disclose the exchange of information, but never discloses the method of handoff. Furthermore, Paull does disclose the exchange of information over wireless network or power line communication network. Paull

teaches that in case of power line communication, the system employs a wireless link to by-pass each transformer in the transmission path in order to transmit from one side of the other side of each transformer in the path. [col.1, line 55 to col.1, line 60] Paull never teaches that these wireless links to by-pass are 5 actually access points used for handover. Paull teaches that these wireless links are only used for by-passing the transformer. Also, Paull teaches that power line communication can never be used between the wireless links to by-pass the transformer since the results would be that the transformer would not allow the communication to occur. This Applicant specifically teaches that the wireless 10 links on the roadway luminaires can use powerline communication for the communication method for handoff since transformers may not be placed between roadway luminaires. One skilled in the art of powerline communications would realize that Paull teaches that the wireless by-pass being used on Utility Poles are for communication by-pass and that the transformers are used to 15 convert medium/high voltages into lower voltages. This Applicant specifically teaches that a wireless by-pass is not needed on a roadway luminaire because the transformer may not be hung from a roadway luminaire. Furthermore, this Application teaches that the roadway luminaire can communicate and can handoff untethered devices over powerline communications with other roadway 20 luminaires because transformers do not filter between them.

Although the Applicant believes that Claim 6 was clearly defined over the references cited by the Examiner, the claim has been modified in order to clarify the invention in this respect.

25 The Examiner rejects claim 8 as being unpatentable over Paull. The Examiner states that Paull discloses the transceiver connected to the power communication network operates inside a lighting apparatus. [figs. 1-2, 11, col. 10, line 74 to col. 11, line 15].

30 I cannot agree. Paull discloses a photoelectric shaft rotation sensor comprising a pair of pulsed light sources. [col. 10 line 74] The pulsed light sources are

positioned behind a rotating disc attached to the rotating shaft. [col. 11 line 1 to col. 11 line 3] Paull discloses that these pulsed light sources may be substituted for incandescent light, and that the rotation disc may be the revolving disc in a watt-hour meter. [col. 11 line 2 to col. 11 line 3] Paull disclosed that the purpose 5 of the light source is to read the disc as it rotates around so as to measure the energy used while the Applicant discloses that the light source is used to illuminate a roadway. One skilled in the art of roadway illumination would realize that Paull's patent would not be able to illuminate the roadway. Paull does not teach that the photoelectric shaft or pulsed light sources is enclosed around a 10 powerline communication device. Paull also does not disclose that the photoelectric shaft or pair of pulsed light sources is attached to a utility pole or a roadway luminaire. Paull specifically states that the photoelectric shaft and pulsed light sources are fit inside an electric meter and is based on low voltage. One skilled in the art of meter reading would assume that a ballast would not be 15 needed to power up the photoelectric shaft or pair of pulsed light sources, and the light sources are not bright enough to provide visibility on a roadway. Finally, one skilled in the art of meter reading would assume that Paull discloses that the photoelectric shaft must be non-removable so as to insure the data being gathered is not voided by criminal actions while the Applicant discloses that the 20 roadway luminaire has a removable photosensor.

The Examiner rejects claims 9-10 as being unpatentable over Paull. The Examiner states that Paull discloses the untethered/device/portable (100) having a transceiver (102,103) for transceiving radio signals to remote location (400).

25 [figs. 1-2, col. 2, line 65 to col. 3, line 40 and lines 62-75]

I cannot agree. Paull discloses a device using radio or acoustic or powerline or any combination of these. [col. 1, line 65 to col. 1, line 70]. Paull does not disclose a device using infrared, ultraviolet, laser, visible light, magnetic, ultra 30 wideband, or a combination of these communication methods. Furthermore, Paull does not disclose a method of handoff nor reference prior art using wireless handoff protocol such as 802.11e.

The Examiner rejects claim 14 as being unpatentable over Paull. The Examiner states that Paull discloses the tethered device (300) connected to power transmission communication network having transceiver (301,306) and power transmission communication system (203) [figs 1-2, col.3, lines 3-22].

I cannot agree. Paull never discloses a device that does not integrate the receiver or the transmitter and whereby said receiver or said transmitter is located in a different location such that the device can still use said receiver or transmitter. Paull also never discloses a mesh network.

In similar fashion for the rejection of handoff in claim 1, the Examiner rejects claims 23-25. The Examiner states that Paull discloses power line communication in the form of a system for handing off or exchanging information [figs. 1-2, col. 2, line 65 to col. 3, line 40]. The Examiner also states that Paull discloses a tethered device (300) connected to power transmission communication network having transceiver (301,306) and power transmission communication system (203) [figs 1-2, col. 3, lines 3-22]

20 I cannot agree. Please reference page 12 – line 15 for Applicant's remarks.

In similar fashion for the rejection of handoff in claim 1, the Examiner rejects claims 23-25. Examiner also states that Paull discloses the transceiver (301,306) connected to the power communication network operates inside a lighting apparatus (821,822) which connects to electrical outlet inherently [figs 1-2, 11, col.10,line 74 to col. 11, line15] Examiner also states that Paull discloses untethered device/portable (100) having a transceiver (102,103) for transceiving radio signals to remote location (400) [figs. 1-2, col.2, line 65 to col.3, line 40]

30 I cannot agree. Please reference page 14 – line 25 for Applicant's remarks. Furthermore, Paull does not disclose that the lighting apparatus is removable and

directly connected to an electric outlet. Paull does disclose that it is powered by electricity however.

Although the Applicant believes that Claims 23-25 were clearly defined over the

5 references cited by the Examiner, the claim has been modified in order to clarify the invention in this respect.

In similar fashion for the rejection of handoff in claim 1, the Examiner rejects claim 26. The Examiner states that Paull discloses power line communication in 10 the form of a system for handing off or exchanging information by wireless network [figs. 1-2, col.2, line 65 to col.3, line 40].

I cannot agree. Please reference page 12 – line 15 for Applicant's remarks.

15 The Examiner rejects claims 27-28 as being unpatentable over Paull. The Examiner states that Paull discloses the tethered device (300) connected to power transmission communication network having transceiver (301,306) to transmit signals to remote location as programmed [figs. 1-2, col.3, lines 3-22].

20 I cannot agree that the Examiner rejects claim 27. Paull does disclose the use of power transmission communication network. However, Paull never discloses the use of a physical interface attached to the power network that can accept removable electric devices and switches on and off the luminescence of a lighting apparatus at the same time. Moreover, this physical interface can be used as the 25 interface to the power transmission communication network.

Although the Applicant believes that claim 27 was clearly defined over the references cited by the Examiner, the claim has been modified in order to clarify the invention in this respect.

30 I cannot agree that the Examiner rejects claim 28. Please reference page 12 – line 15 for Applicant's remarks.

The Examiner provisionally rejects claim 7 and claims 12-13 under 35 U.S.C. § 103 as obvious to a person having ordinary skill in the art in reference to U.S. Patent 3,656,112 by Paull and U.S. Patent 5,983,073 by Ditzik.

5

The Examiner rejects claim 7 as being unpatentable over Paull in view of Ditzik. The Examiner states Paull teaches a means for determining a location of the subscriber device (500) [col. 1, line 38-50]. Paull also discloses transmitting data signal to the device [col. 1, lines 26-50], informing the device of location data [col. 1, lines 26-50], determining a time of arrival [col. 4, lines 60-73]. Examiner states that Paull does not specifically mention evaluating data with respect to the untethered device as claimed by applicant. However, Ditzik discloses a wireless communication including cell phone (14), notebook computer (51) that may perform their duties in data communication as programmed [figs. 2-3, abstract].

10
15

The Examiner also states that it would be obvious to one having ordinary skill in the art to utilize the teaching of Arjomand in the system of Birchfield to perform their duties as evaluating data and transmitting data signals to remote locations as required.

20

I have assumed that the Examiner has made a mistake in saying Arjomand and Birchfield as references. I am assuming that the Examiner meant Paull and Ditzik.

25
30

Therefore, I cannot agree with the Examiner stating that it would be obvious to one having ordinary skill in the art to utilize the teaching of Paull in the system of Ditzik to perform their duties in evaluating data and transmitting data signals to remote locations as required. The combination of Paull and Ditzik would not produce the same results as required. Ditzik does not disclose an access point that is capable of handing off or reassigning wireless devices. Ditzik never mentions a method of handoff. One skilled in the art of cellular communication

would realize that the base station is responsible for handing off a cellular phone from one base station to another.

Using the combined reference of Paull and Ditzik also represents impermissible

5 hindsight because the references were addressing different problems. If Paull and Ditzik were trying to solve the same problem, one would expect at least some overlapping prior art references. There is no overlapping art. Therefore, the combination does not seem reasonable and there is no motivation to combine the references.

10

Although the Applicant believes that claim 7 was clearly defined over the references cited by the Examiner, the claim has been modified in order to clarify the invention in this respect.

15

The Examiner rejects claim 12-13 as being unpatentable over Paull in view of Ditzik. The Examiner states Ditzik discloses the wireless communication including cell phone (14), notebook computer (51) that may perform their duties in data communication as programmed [figs. 2-3, abstract].

20

The combination of Ditzik and Paull does not provide for the ability to repeat data, or track items through real time position. Therefore, the combination of these references would not produce the same results.

Using the combined reference of Paull and Ditzik also represents impermissible

25

hindsight because the references were addressing different problems. If Paull and Ditzik were trying to solve the same problem, one would expect at least some overlapping prior art references. There is no overlapping art. Therefore, the combination does not seem reasonable and there is no motivation to combine the references.

30

The Examiner must accept that a roadway luminaire is not a photo sensor used for reading a utility meter, but a lighting apparatus used in roadways. A roadway

luminaire is not the utility pole used to hang transformers. A roadway luminaire is a streetlight used for providing luminescence to a road.

The Examiner must also accept that handoff is not just the transmission or

5 exchanging of information by a communication device. Also, not all wireless devices support handoff. This is obvious to a person skilled in the art of communication that a specific handoff method or protocol is needed for wireless communication.

10 Accordingly, the Applicant believes the Application, as amended, is in condition for allowance, and such action is respectfully requested.

Respectfully submitted,

15

Dr. Richard A. Mowery, Jr.

(254) 848-9932